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**Study Whether Impaired Cognitive Performance in Long-Term Marijuana Users is a Methodological Artifact or a Manifestation of Harm**

In an effort to establish that cannabis-related deficits arise from inadequate incentives for optimal performance rather than actual neurotoxicity, we seek funding to recruit 30 chronic cannabis users and 30 non-users to complete cognitive tasks. New research and reviews continue to harp on cannabis users’ lower scores on measures of working memory tasks. This work continues to attribute these lower scores to cannabis, but the tasks never provide incentives for optimal performance. Non-users may simply be more likely to play the role of “good participant,” leading them to try harder on these tasks even when there is no reward for doing so. We will use parallel forms of a popular memory test. First, participants will complete the task under standard conditions, with no financial rewards for good performance. Then, participants will complete a comparable version of the task with a financial incentive. We predict that users and non-users will differ on the memory task when there is no reward for good performance, but these differences will disappear once an adequate incentive is provided.

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